

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A solid-state imaging apparatus comprising:

a solid-state imaging device having a plurality of pixels that image light originating from a subject, by dividing the light into a plurality of color signals with a plurality of types of color filters provided with said plurality of pixels; and

a signal processor that subjects photographed image data output from the solid-state imaging device to white balance correction at a gain corresponding to plurality of light source type(s) types.

wherein the solid-state imaging device further comprises a sensor that has a filter different from said plurality of types of color filters and detects light in a wavelength range which induces a difference having a predetermined value or more between radiant energy of a first light source and radiant energy of a second light source, the sensor being provided on the surface of the solid-state imaging device; and

wherein the signal processor further comprises: a mixing ratio estimation unit that determines a mixing ratio between illumination light originating from the first light source and illumination light originating from the second light source, through use of a detection signal output from the sensor; and a gain computation unit that computes a gain where the white balance correction is to be effected, in accordance with the mixing ratio.

2. (Original) The solid-state imaging apparatus according to claim 1, wherein the mixing ratio and the gain are determined with respect to each of the pixels.

3. (Original) The solid-state imaging apparatus according to claim 1, wherein the signal processor comprises:

a color tone correction unit for correcting a color tone by multiplying color difference signals determined from the photographed image data by a color difference matrix; and

a color difference matrix correction unit for correcting coefficients of the color difference matrix in accordance with the mixing ratio.

4. (Original) The solid-state imaging apparatus according to claim 1, wherein the signal processor comprises a light source type determination unit that determines the type of a light source from the photographed image data.

5. (Canceled)

6. (Currently amended) A digital camera comprising:

a solid-state imaging device having a plurality of pixels that image light originating from a subject, by dividing the light into a plurality of color signals with a plurality of types of color filters provided with said plurality of pixels; and

a signal processor that subjects photographed image data output from the solid-state imaging device to white balance correction at a gain corresponding to a plurality of light source type(s) types,

wherein the solid-state imaging device further comprises a sensor that has a filter different from said plurality of types of color filters and detects light in a wavelength range which induces a difference having a predetermined value or more between radiant energy of a first light source and radiant energy of a second light source, the sensor being provided on the surface of the solid-state imaging device; and

wherein the signal processor further comprises: a mixing ratio estimation unit that determines a mixing ratio between illumination light originating from the first light source and illumination light originating from the second light source, through use of a detection signal output from the sensor; and a gain computation unit that computes a gain where the white balance correction is to be effected, in accordance with the mixing ratio.

7. (Currently amended) A solid-state imaging apparatus comprising:

a solid-state imaging device having a plurality of pixels for imaging light originating from a subject, by dividing the light into a plurality of color signals with a plurality of types of color filters provided with said plurality of pixels; and

signal processing means for subjecting photographed image data output from the solid-state imaging device to white balance correction at a gain corresponding to a plurality of light source type(s)types,

wherein the solid-state imaging device further comprises a sensor, having a filter different from said plurality of types of color filters, for detecting light in a wavelength range which induces a difference having a predetermined value or more between radiant energy of a first light source and radiant energy of a second light source, the sensor being provided on the surface of the solid-state imaging device; and

wherein the signal processing means further comprise: mixing ratio estimation means for determining a mixing ratio between illumination light originating from the first light source and illumination light originating from the second light source, through use of a detection signal output from the sensor; and gain computation means for computing a gain where the white balance correction is to be effected, in accordance with the mixing ratio.

8. (Currently amended) A digital camera comprising:

a solid-state imaging device having a plurality of pixels for imaging light originating from a subject, by dividing the light into a plurality of color signals with a plurality of types of color filters provided with said plurality of pixels; and

signal processing means for subjecting photographed image data output from the solid-state imaging device to white balance correction at a gain corresponding to a plurality of light source type(s)types,

wherein the solid-state imaging device further comprises a sensor, having a filter different from said plurality of types of color filters, for detecting light in a wavelength range which induces a difference having a predetermined value or more between radiant energy of a first light source and radiant energy of a second light source, the sensor being provided on the surface of the solid-state imaging device; and

wherein the signal processing means further comprise: mixing ratio estimation means for determining a mixing ratio between illumination light originating from the first light source and illumination light originating from the second light source, through use of a detection signal

output from the sensor; and gain computation means for computing a gain where the white balance correction is to be effected, in accordance with the mixing ratio.

9. (Previously Presented) The solid-state imaging apparatus of claim 1, wherein said plurality kinds of filters are red (R), green (G), and blue (B) filters.

10. (Previously Presented) The digital camera of claim 6, wherein said plurality kinds of filters are red (R), green (G), and blue (B) filters.

11. (Previously Presented) The digital camera of claim 8, wherein said plurality kinds of filters are red (R), green (G), and blue (B) filters.